



Figure 8

8A

1) V2R	CARGTTPPSLGPQDESCTTASSSLAKDTSS
2) V2R-S362X	CARGTTPPSLGPQDESCTTA
3) V2R-SSSTSS/AAAAAA	CARGTTPPSLGPQDESCTTAAAA LAKDAAA
4) V2R-TSS/AAA	CARGTTPPSLGPQDESCTTASSSLAKDAAA
5) V24-SSS/AAA	CARGTTPPSLGPQDESCTTAAAA LAKDTSS
6) β_2 AR-V2R-SSS/AAA	CARGTTPPSLGPQDESCTTAAAA LAKDTSS
7) β_2 AR	CLRRSSLKAYNGYSSNGNTGEQSGYHVEQEKENKLLCEDLP- GTEDFVGHQGTVPDNDIDSQGRNCSTNDSILL
8) β_2 AR413-V2R10	CLRRSSLKAYNGYSSNGNTGEQSGYHVEQEKENKLLCEDLP- GTEDFVGHQGTVPDNDIDSQGRNCSTNDSLLSSSLAKDTSS
9) β_2 AR360-V2R10	CLRRSSLKAYNGYSSNGNTSSSLAKDTSS

8B

V2R	NPWIYASFSSSVSELRLCCARGRTPPSLGPQDESCTTASSS LAKDTSS
AAA-1	-----AAA-----
AAA-2	-----AAA-----
NTR-1	NPILYNLVSANFRQVFLSTLACLCPGWRHRRKKRPTFSRKPNMSS NHAFSTSATRETTY
AMAA	-----A-AA-----
AAA	-----AAA-----
OTR	NPWIYMLFTGHLFHVELVQFLCCSASYLKGRRLGETSAS KKSNSSSFVLSHRSSQRSCSQPSTA
AAAA	-----AAAA-----
AAA-1	-----AAA-----
AAA-2	-----AAA-----
SPR	NPIIYCCLNDRFRLGFKHAFRCPPFISAGDYEGLMKSTRYLQTOGVYKVSRLTETIST VVGAHEEPEPDGPKATPSS LKLTSNCSSRSDSKTMTESFSFSS NVLS
383X	-----X-----
355X	-----X-----
325X	-----X-----
AAIAA	-----AA-AA-----
APAA	-----A-AA-----



Figure 10

10A. Amino acid sequence of the MOR-V2R chimera expressed from the pEArrB-1/MOR vector

MDSSTGPGNTSDCSDPLAQASCSPAPGSWLNLSHVDGNQSDPCGLNRTGLG
GNDSLCPQTGSPSMVTAITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTA
TNIYIFNLALADALATSTLPFQSVNYLMGTWPFGTILCKIVISIDYYNMFT
SIFTLCTMSVDRIYAVCHPVKALDFRTPRNAKIVNVCNWILSSAIGLPVMF
MATTKYRQGSIDCTLTFSHPTWYWENLLKICVFIFAFIMPILIIITVCYGLM
ILRLKSVRMLSGSKEKDRNLRRITRMVLVVAVFIVCWTPIHIYVIIKALI
TIPETTFQTVSWHFCIALGYTNSCLNPVLYAFLDENFKRCFREFCAAARGR
TPPSLGPQDESCTTASSSLAKDTSS

(Seq. ID No. 4)

10B. Amino acid sequence of the D1AR-V2R chimera expressed from the pEArrB-1/D1AR vector

MAPNTSTMDEAGLPAERDFSFRILTACFLSLLILSTLLGNTLVCAAVIRFR
HLRSKVTNFFVISLAVSDLLVAVLVMPWKAVAEIAGFWPFGSFCNIWVAFD
IMCSTASILNLCVISVDRIYWAISSPFQYERKMTPKAAFILISVAWTLVLI
SFIPVQLSWHKAKPTWPLDGNFTSLEDTEDDNCDTRLSTRTYAISSSLISFY
IPVAIMIVTYTSIYRIAQKQIRRI SALERA AVHAKNCQTTAGNGNPVECAQ
SESSFKMSFKRETKVLKTL SVIMGVFVCCWLPFFISNCMVPFCGSEETQPF
CIDSITFDVFWFGWANSSLNPIIYAFNADFQKAFSTLLGCYRLCAAARGR
TPPSLGPQDESCTTASSSLAKDTSS

(Seq. ID No. 5)



Figure 10, pg. 2

10C. Amino acid sequence of the 5HT1AR-V2R chimera expressed from the pEArrB-1/5HT1AR vector

MDVLSPGQGNNNTTSPAPFETGGNTTGISDVTVSYQVITSLLLGTLI FCAV
LGNACVVAAIALERSLQNVANYLIGSLAVTDLMSVSVLVLPMAALYQVLNKKW
TLGQVTCDLFIALDVLCCCTSSILHLCAIALDRYWAITDPIDYVNKRTPRRA
AALISLTWLIGFLISIPMLGWRTPEDRSDPDACTISKDHGYTIYSTFGAF
YIPLLLMLVLYGRI FRAARFRIKTVKKVEKTGADTRHGASPAQPKKSVN
GESGSRNWRLGVESKAGGALCANGAVRQGDDGAALVIEVHRVGNKEHLP
LPSEAGPTPCAPASFERKNERNAEAKRKMALARERKTVKTLGIIMGTFILC
WLPFFIVALVLPFCESCHMPTLLGAI
INWLGYSNSLLNPVIYAYFNKDFQNAFKKI I KCNFCA**AAARGRTPPSLGPQD
ESCTTASSSLAKDTSS**

(Seq. ID No. 6)

10D. Amino acid sequence of the β 3AR-V2R chimera expressed from the pEArrB-1/ β 3AR vector

MAPWPHENSSLAPWPDLPNTANTSGLPVPWEAALAGALLALAVLAT
VGGNLLVIVAIWTPRLQTMNTNFVTSLAAADLVMGLLVPPAATLALTGH
WPLGATGCELWTSVDVLCVTASIELCALAVDRYLAVTNPLRYGALVTKRC
ARTAVVLVWVVSAAVSFAPIMSQWVRVGADAEAQCHSNPRCCAFASNMPY
VLLSSSVSFYLPLLVMFLVYARVFVATRQLRLLRGELGRFPPEESPPAPS
RSLAPAPVGTCAPPEGVPACGRRPARLLPLREHRALCTLGLIMGTFTLCWL
PFFLANVLRALGGPSLVPGPAFLALNWLGYSANSAFNPLIYCRSPDFRSAFR
RLLCRC**AAARGRTPPSLGPQDESCCTTASSSLAKDTSS**

(Seq. ID No. 7)

10E. Amino acid sequence of the Edg1R-V2R chimera expressed from the pEArrB-1/Edg1R vector

MGPTSVPLVKAHRSSVSDYVNYDIIVRHYNITGKLNISADKENS IKLTSV
FILICCFIILENIFVLLTIWTKKFKHRPMYYFIGNLALS DLLAGVAYTANL
LLSGATTYKLTPAQWFLREGSMFVALSASFSLAIAIERYITMLKMKLHN
GSNNFRLFLLISACWVISLILGGLPIMGWNCISALSSCSTVLPLYHKHYIL
FCTTVFTLLLLSIVILYCRIYSLVTRSRRLTFRKNISKASRSSEKSLALL
KTVIIVLSVFIACWAPLFILLLLDVGCKVKTCDILFRAEYFLVLAVLNSGT
NP I IYTLTNKEMRRAFIRIMSCCKCA**AAARGRTPPSLGPQDESCCTTASSSLA
KDTSS**

(Seq. ID No. 8)



Figure 11

11A. Nucleotide sequence of the β 2AR-V2R chimera


atggggcaaccggaacggcagcgccttcttgctggcacccaatagaagccatgcgccggacc
acgacgtcacgcagcaaagggacgaggtgtgggtgggtgggcatgggcatcgatgtctctcat
cgtcctggccatcggtgttggcaatgtgctggatcacagccattgccaagttcgagcgtctg
cagacggtcaccaactacttcatcacttcaactggcctgtgctgatctggatgggctggcag
tggtgccccttggggccgcccataattcttatgaaaatgtggacttttggcaacttctggtgca
gttttggacttccattgatgtgctgtgctgcacggccagcattgagaccctgtgctgatcgca
gtggatcgctactttgccattacttcaactttcaagtaccagagcctgctgaccaagaataagg
cccgggtgatcattctgatgggtgtggattgtgtcaggccttacctccttcttgcccattcagat
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tcatggtcttctgtactccagggtcttccaggaggccaaaaggcagctccagaagattgacaa
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cccggggacgcaccccaccagcctgggtccccaagatgagtcctgcaccaccgcccagctcctc
cctggccaaggacacttcatcgtag

(SEQ ID No. 9)

11B. Nucleotide sequence of the MOR-V2R chimera

atggacagcagcaccggcccagggaacaccagcgcactgctcagacccttagctcaggcaagtt
gctccccagcacctggctcctgggtcaacttgtccacggttgatggcaaccagtcgatccatg
cggctctgaaccgcaccgggcttggcggaacgacagcctgtgccctcagaccggcagcccttcc
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tcaccgggatgggtgctgggtggtcggtgtgatttatcgctctgctggaccctccacatcta
cgtcatcatcaaagcgtgatcacgattccagaaaccacatttcagaccggttctcctggcacttc
tgcattgctttgggttacacgaacagctgctgaatccagttctttacgccttccctggatgaaa
acttcaagcgtgcttcagagagttctgcgcggccgcacggggacgcaccccaccagcctggg
tccccaagatgagtcctgcaccaccgcccagctcctcctggccaaggacacttcatcgtag

(SEQ ID No. 10)



11C. Nucleotide sequence of the D1AR-V2R chimera

atggctcctaacacttctaccatggatgaggccgggctgccagcggagagggatttctcctttc
gcatectcacggcctgtttctgtcactgctcatcctgtccactctcctgggcaatacccttgt
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ttagctgtgtcagatctcttgggtggctgtcctgggtcatgccctggaaagctgtggccgagattg
ctggcttttggccctttgggtccttttgtaacatctgggtagcctttgacatcatgtgctctac
ggcgtccatttctgaacctctgcgtgatcagcgtggacaggtactgggctatctccagccctttc
cagtatgagaggaagatgacccccaaagcagccttcatcctgattagcgtagcatggactctgt
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gggcgaattcttccctgaacccattatattatgcttttaatgctgacttcagaaggcgttctc
aacctcttaggatgctacagactctgcgcggcgacggggacgcacccccaccagcctgggt
cccaagatgagtcctgcaccaccgccagctcctccctggccaaggacacttcatcgtga
(SEQ ID No. 11)

11D. Nucleotide sequence of the 5HT1AR-V2R chimera

atggatgtgctcagccctggtcagggcaacaacaccacatcaccaccggctccctttgagaccg
gcggcaacactactggtatctccgacgtgaccgtcagctaccaagtgatcacctctctgctgct
gggcacgctcatcttctgcgcgggtgctgggcaatgcgtgcgtgggtggctgccatcgcttggag
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gagtcggggagcaggaactggaggctgggcgtggagagcaaggctgggggtgctctgtgcgcca
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agacagtgaagacgctgggcatcatcatgggcaccttcatcctctgctggctgcccttcttcat
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ccccaccagcctgggtcccaagatgagtcctgcaccaccgccagctcctccctggccaaggac
acttcatcgtga
(SEQ ID No. 12)



11E. Nucleotide sequence of the c3AR-V2R chimera

atgggtccgtggcctcacgagaacagctctcttgccccatggccggacctccccaccctggcgc
ccaataccgccaacaccagtggggtgccaggggttcctgtgggaggcggccctagccggggccct
gctggcgctggcggtgctggccaccgtgggaggcaacctgctgggtcatcgtggccatcgctgg
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tgggactcctgggtgggtgccgcggcgggccaccttggcgctgactggccactggccgttgggcgc
cactgggtgcgagctgtggacctcgggtggacgtgctgtgtgtgaccgccagcatcgaaacctg
tgcgccctggccgtggaccgctacctgggtgtgaccaacctcgctgcgttacggcgccactgggtca
ccaagcgctgcgcccggacagctgtggtcctgggtgtgggtcgtgtcggccgcgggtgtcgtttgc
gcccatcatgagccagtgggtggcgctagggggccgacgcgcgaggcgcagcgtgccactccaac
ccgcgctgctgtgccttcgcttccaacatgccctacgtgctgctgtcctcctcgtctccttct
accttccctcttctcgtgatgctcttcgtctacgcgcgggttttcgtgggtggctacgcgccagct
gogcttgcgtgcgcggggagctggggccgctttccgcccgaggagtctccgcggcgccgtcgcg
tctctggcccccgccccgggtggggacgtgcgctccgccgaaggggtgccgcctgcggccggc
ggccccgcgcgctcctgcctctccgggaacaccgggccccgtgcaccttgggtctcatcatggg
caccttcaactctctgctgggtgcccttctttctggccaacgtgctgcgcgccccggggggcccc
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accgctcatctactgccgcagcccgactttcgcagcgccctccgcgctcttctgtgccgctg
cgcgccgcacggggacgcacccccaccagcctgggtcccccaagatgagtcctgcaccaccgcca
gctcctccttgccaaggacacttcatcgtga

(SEQ ID No. 13)

11F. Nucleotide sequence of the Edg1-V2R chimera

atggggcccaccagcgctcccgctgggtcaaggcccaccgcagctcgggtctctgactacgtcaact
atgatatcatcgtccggcattacaactacacgggaaagctgaatatcagcgcggacaaggagaa
cagcattaaactgacctcgggtgggtgttcattctcatctgctgctttatcatcctggagaacatc
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gacgttccgcaagaacatttccaaggccagccgcagctctgagaagtgcgtggcgctgctcaag
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a

(SEQ ID No. 14)